

We claim:

1. A low alloyed high speed tool steel, which consists essentially of, by weight %, C: 0.50-0.75%, Si: 0.02-2.00%, Mn: 0.1-3.0%, P: up to 0.050%, S: up to 0.010%, Cr: 5.0-6.0%, W: 0.5-2.0%, V: 0.70-1.25%, Al: up to 0.1%, O: up to 0.01% and N: up to 0.04% and the balance of Fe, provided that $[Mo+0.5W](Mo-eq.)$ is 2.5-5.0%, that $Mo-eq./V$ is 2-4, and that it contains carbides of, in the annealed state, $[MC+M_6C]$ -type and/or $M_{23}C_6(M_7C_3)$ -type, and after quenching from a temperature of 1100-1200°C, substantially no remaining carbide or, even contained, almost all the carbides being of MC-type.

2. The low alloy high speed tool steel according to claim 1, wherein Si-content is 0.2-0.8%.

3. The low alloy high speed tool steel according to claim 1, wherein the steel further contains at least one of the group consisting of Ni: up to 2.0%, Cu: up to 1.0% and Co: up to 3.0%.

4. The low alloy high speed tool steel according to claim 1, wherein the steel further contains B: up to 0.01%.

5. The low alloy high speed tool steel according to claim 1, wherein the steel further contains Nb: up to 0.1%, and wherein $\text{Mo-eq.}/(\text{V}+5\text{Nb})$ is 2-4.

6. The low alloy high speed tool steel according to claim 1, wherein the steel further contains at least one of the group consisting of Ni: up to 2.0%, Cu: up to 1.0% and Co: up to 3.0%, and B: up to 0.01%.

7. The low alloy high speed tool steel according to claim 1, wherein the steel further contains at least one of the group consisting of Ni: up to 2.0%, Cu: up to 1.0% and Co: up to 3.0%, and Nb: up to 0.1%, and wherein $\text{Mo-eq.}/(\text{V}+5\text{Nb})$ is 2-4.

8. The low alloy high speed tool steel according to claim 1, wherein the steel further contains B: up to 0.01% and Nb: up to 0.1%, and wherein $\text{Mo-eq.}/(\text{V}+5\text{Nb})$ is 2-4.

9. The low alloy high speed tool steel according to claim 1, wherein the steel further contains at least one of the group consisting of Ni: up to 2.0%, Cu: up to 1.0% and Co: up to 3.0%, B: up to 0.01%, and Nb: up to 0.1%, and wherein $\text{Mo-eq.}/(\text{V}+5\text{Nb})$ is 2-4.